

ALGEBRA

- Identify and use the arithmetic properties of subsets of integers and rational, irrational, and real numbers, including closure properties for the four basic arithmetic operations
- Understand and use such operations as taking the opposite, find the reciprocal, taking a root, and raising to a fractional power
- Understand and use the rules of exponents
- Solve equations and inequalities involving absolute values
- Simplify expressions before solving linear equations and inequalities in one variable
- Solve multi-step problems, including word problems, involving linear equations and linear inequalities in one variable
- Graph a linear equations and compute the x- and y- intercept
- Sketch the region defined by linear inequality
- Verify that a point lies on a line, given an equations of the line
- Understand the concept of parallel lines and perpendicular lines and how those slopes are related
- Solve a system of two linear equations in two variables algebraically and interpret graphically
- Add, subtract, multiply, and divide monomials and polynomials
- Apply basic factoring techniques to second and simple third-degree polynomials
- Simplify fractions with polynomials in the numerator and denominator

- Add, subtract, multiply, and divide rational expressions and functions
- Solve a quadratic equation by factoring or completing the square
- Apply algebraic techniques to solve rate problems, work problems, and percent mixture problems
- Understand the concepts of a relation and a function
- Determine the domain of independent variables defined by a graph, set of ordered pairs, or a symbolic expression
- Determine whether a relation defined by a graph, a set of ordered pairs, or a symbolic expression is a function
- Know the quadratic formula, graph quadratic functions, and know their roots are the x-intercepts
- Apply quadratic equations to physical problems, such as the motion of an object under the force of gravity
- Use and know simple aspects of a logical argument



SCIENCE

FOCUS ON PHYSICAL SCIENCE MOTION

- Calculate the velocity of an object as the rate of change of its position

FORCES

- Show how unbalanced forces cause changes in velocity

STRUCTURE OF MATTER

- Know each of more than 100 elements of matter has distinct properties and atomic structure and that all forms of matter are composed of one or more elements

EARTH IN THE SOLAR SYSTEM (EARTH SCIENCE)

- Understand that the structure of the universe can be learned from studying stars and galaxies and their evolution

REACTIONS

- Know that chemical reactions are processes in which atoms are rearranged into different combinations of molecules

CHEMISTRY OF LIVING SYSTEMS (LIFE SCIENCE)

- Describe the principles of chemistry which underlie the functioning of biological systems

PERIODIC TABLE

- Know that the organization of the periodic table is based on the properties of the elements, and reflects the structure of atoms

DENSITY AND BUOYANCY

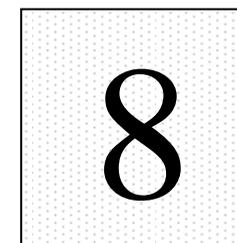
- Show that all objects experience a buoyant force when immersed in a fluid and predict whether an object will float or sink

INVESTIGATION AND EXPERIMENTATION

- Know the scientific progress is made by asking meaningful questions and conducting careful experiments

The California Content Standards

Pleasant Grove J.U.S.D.
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Pleasant Grove, CA 95668



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Dear Parents,
 These standards are the skills and knowledge that your child is expected to master by the end of the year. By becoming familiar with the standards, you will be better able to assist your child with schoolwork at home and ask the teacher about your child's mastery level. Standards in other subjects are available in office upon request.

By the end of 8th grade, students will:

READING

WORD ANALYSIS, FLUENCY, AND VOCABULARY DEVELOPMENT

- Analyze figurative language and verify meaning
- Use common word origins and historical and context clues to determine historical influences

COMPREHENSION (FOCUS ON INFORMATIONAL MATERIALS)

- Analyze the features of expository text by the pattern of proposal and support
- Summaries in terms of main idea, detail, and underlying of scope and organization of ideas; and summaries in terms of main idea, details and underlying meaning
- evaluate the unity, coherence, logic, internal consistency, and structural patterns of text

LITERARY ANALYSIS

- determine the relationship among the purposes and characteristics of different forms of poetry

- Evaluate the structural elements of plot; analyzes characterization; relevance of setting; recurring themes; and identify significant literary devices

LANGUAGE ARTS

WRITING STRATEGIES

- Create essays exhibiting awareness of the audience and purpose, formal introductions, supporting evidence and conclusions
- Use stages of the writing process
- Achieve balance between researched information and original ideas through multiple step searches
- Revise writing for word choice; organization; point of view; and transitions between paragraphs, passages, and ideas

WRITING APPLICATIONS

- Relate fictional accounts of events through biographies, autobiographies, short stories and narratives
- Explain content specific information through research reports, responses to literature, persuasive essays, and technical and career documents

WRITTEN LANGUAGE

- Use correct and varied sentence structure, proper punctuation, capitalization and spelling; and edit written work for correct grammar usage



SOCIAL STUDIES UNITED STATES HISTORY AND GEOGRAPHY (GROWTH AND CONFLICT)

- Understand the major events preceding the founding of the nation and relate their significance to the development of American constitutional democracy
- Analyze the political principles underlying the U.S. Constitution and compare the enumerated and implied powers of the federal government
- Understand the foundation of the American political system and the role of citizens
- Analyze the aspirations and ideals of the people of the new nation
- Analyze U.S. foreign policy in the early republic
- Analyze the challenges of the American people from 1800 to the mid 1800's
- Analyze the early and steady attempts to abolish slavery and to realize the ideals of the Declaration of Independence
- Analyze the causes, key events, and consequences of the Civil War
- Analyze the character and lasting consequences of the Reconstruction
- Analyze the transformation of the American economy and the changing political conditions in the United States in response to the Industrial Revolution



PHYSICAL EDUCATION MOVEMENT, SKILLS, AND MOVEMENT KNOWLEDGE

- Use basic offensive and defensive skills in a modified version of a team sport
- Demonstrate modified version of movement forms (i.e. dance, advanced games strategies)
- Identify and apply advanced movement skills to different sports
- Describe principles of practice for physical activities
- Apply scientific principles of motion to learning skill for specific sports
- Describe principals of training and conditioning for specific physical activities
- Design a personal health related fitness program based on fitness profile
- Check physiological indicators of exercise during and after physical activity, i.e. heart rate
- Engage in physical activity at the target heart rate for a minimum of 20 minutes three times a week

